



1772

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Keith R. D'ALESSIO et al.

Application No.: 09/430,289

Filed: October 29, 1999

For: POLYMERIC CONTAINERS FOR 1,1-DISUBSTITUTED MONOMER COMPOSITIONS

Group Art Unit: 1772

Examiner: S. HON

Docket No.: 100497.02

#26

REQUEST FOR RECONSIDERATIONDirector of the U.S. Patent and Trademark Office
Washington, D.C. 20231

Sir:

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In reply to the Office Action mailed February 26, 2002, Applicants request reconsideration of the application in view of the following remarks.

Claims 1-59 are pending herein. By the Office Action, claim 15 is objected to; claims 1-14, 16-20, 45-50, 56 and 59 are rejected under 35 U.S.C. §103; and claims 21-44, 51-55 and 57-58 are withdrawn from consideration.

Applicants thank Examiner Hon for the indication that the previous rejection of the claims under §112 and under §102 and §103 over Maeda have been withdrawn.

Applicants also thank Examiner Hon for the indication that claim 15 is objected to only for being dependent from a rejected base claim, but is otherwise allowable. For the reasons set forth below, all of claims 1-59 are believed to be allowable.

I. Restriction Requirement

The Restriction Requirement restricts between Group I (claims 1-20, 45-50, 56 and 59) and Group II (claims 21-44, 51-55 and 57-58). In response to the Restriction Requirement,

Applicants previously elected the claims of Group I, with traverse. Confirmation of the election was filed in the U.S. Patent and Trademark Office on May 17, 2001.

Rejoinder of all of the claims is respectfully requested. The claims of Groups I and II are drawn to sufficiently inter-related inventions to warrant examination thereof in a single application. Group I is drawn to a combination including a specified container and a 1,1-disubstituted ethylene monomer composition contained in the container. Group II is drawn to a process for making such a container or combination. Compare, for example, claim 1 (Group I) and claim 21 (Group II).

Where product and process claims are presented in the same application, Applicant may be called upon under 35 U.S.C. §121 to elect claims to either the product or process. MPEP §821.04. However, in the case of an elected product claim, rejoinder will be permitted when a product claim is found allowable and the withdrawn process claim depends from or otherwise includes all the limitations of an allowed product claim. Id.

In the present application, the method claims of Group II include all of the limitations of the product of Group I. In particular, all of the limitations of the independent product claim 1 of Group I are incorporated into the method of Group II.

Since the method claims of Group II include the limitations of the product claims of Group I, the method claims must be rejoined with the product claims once the product claims are allowed. Thus, to streamline prosecution and avoid delay, the Restriction Requirement should be withdrawn to permit concurrent examination of all of the pending claims. Applicants respectfully request reconsideration and withdrawal of the Restriction Requirement.

The Office Action acknowledges that the above-requested rejoinder is correct, but argues that rejoinder is premature at this time. Because all of the claims are allowable, for the reasons described below, rejoinder is proper at this time.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the Restriction Requirement.

II. Rejections Over Kvitrud

A. Kvitrud and Fehn

Claims 1-9, 16-18, 45-47, 56 and 59 are rejected under 35 U.S.C. §103(a) over Kvitrud in view of Fehn. Applicants respectfully traverse this rejection.

1. The Claimed Invention

Independent claim 1 is directed to a combination including: a container comprising a polymeric resin matrix including at least one post-halogenated polymeric material, and a 1,1-disubstituted ethylene monomer composition contained in said container. Similarly, independent claim 45 is directed to a container containing an adhesive monomer composition, comprising: a container comprising a polymeric resin matrix including at least one post-halogenated polymeric material, and an adhesive monomer composition contained in said container. Independent claim 46 is directed to a combination including: a container comprising a polymeric resin matrix including at least one functionalized polymeric material, and a 1,1-disubstituted ethylene monomer composition contained in said container. The claimed invention would not have been obvious over the cited references.

The Office Action argues that Kvitrud teaches all of the limitations of the claimed invention, except for post-halogenation of the inner surface of the container, but that such a teaching is provided by Fehn. Applicants respectfully disagree.

2. Kvitrud Does Not Teach or Suggest Post-Halogenated or Functionalized Materials

Claims 1, 45 and 46 each specifically require that the container comprises a polymeric resin matrix, which includes at least one post-halogenated polymeric material or at least one functionalized polymeric material. Such containers are not taught or suggested by Kvitrud,

and are different from the materials and containers taught by Kvitrud in terms of their properties and effects.

As described in the Office Action, Kvitrud is merely directed to a packaged composition that includes a vial having wall portions defining a chamber and a photocurable material in the chamber. The wall portions transmit less than about 1.0% of actinic radiation, and at least one of the wall portions transmits light having wavelengths in at least part of the visible spectrum. Kvitrud at Abstract.

However, Kvitrud lacks essential elements of the claimed invention. First, as admitted in the Office Action, Kvitrud nowhere teaches or suggests that the container comprises a polymeric resin matrix including at least one post-halogenated or functionalized polymeric material. In fact, although Kvitrud provides a detailed description of suitable container materials, at col. 3, lines 35-45 and col. 4, lines 25-35. Kvitrud nowhere specifically teaches or suggests the use of halogenated or functionalized materials at all. That is, Kvitrud nowhere teaches or suggests the use of container materials that include halogen or other functional species in general, much less that those halogen or other functional species are provided by post-halogenation or functionalization, as claimed.

Second, and contrary to the assertion in the Office Action, Kvitrud does not teach or suggest that the container is suitable for use with a 1,1-disubstituted ethylene monomer composition, such as a cyanoacrylate composition, as claimed. The Office Action points to col. 1, lines 10-35 as teaching this feature. However, that cited passage is irrelevant to the present rejection.

At col. 1, lines 10-35, Kvitrud discloses that various containers are known in the art for holding various compositions. Kvitrud describes that "squeezable polymeric vials have been long used for various medical and dental preparations ... Commercial and industrial applications include compositions for film developing and other photographic applications,

adhesives (such as cyanoacrylates), lubricants and the like." Col. 1, lines 29-36. However, that disclosure is with reference to the prior art, and not to the containers that are the focus of the Kvitrud patent. Kvitrud faults such conventional containers as unacceptable for the photocurable compositions of the reference. Nowhere does Kvitrud disclose, teach or suggest that the containers of the patent could or even should be used for cyanoacrylate adhesives. Instead, Kvitrud teaches containers specifically designed for photocurable compositions, where such containers address problems in the prior art. Namely the improved containers of Kvitrud are containers that do not allow certain wavelength radiation to enter the container, since such radiation would tend to cure the photocurable composition. Abstract. Kvitrud nowhere teaches or suggests that photocuring is a concern for cyanoacrylate adhesives, or that the inventive containers of the patent would have any benefit to such cyanoacrylate adhesives.

At most, Kvitrud only arguably suggests this its disclosed containers may be useful for storing cyanoacrylate, since those containers are disclosed as improvements over the prior art. However, those containers are not post-halogenated or functionalized, as claimed.

3. Fehn Fails to Overcome the Deficiencies of Kvitrud

To overcome the deficiencies of Kvitrud, the Office Action cites Fehn. The Office Action argues that Fehn discloses post-halogenation processing of polymeric container materials, to provide a container that prevents contaminants from entering the container. The Office Action argues that it would have been obvious to combine the cited references to practice the claimed invention. Applicants disagree.

a. The Office Action's Premise is Incorrect

The Office Action argues that Kvitrud and Fehn are combinable, because it would have been obvious to utilize the barrier layer of Fehn in the container of Kvitrud. The Office Action points out that Fehn discloses the post-halogenation as providing a layer that presents

a barrier to contaminants from entering the contained material. However, as Applicants have repeatedly pointed out in the past, this premise is incorrect.

The previously submitted Declarations of Keith D'Alessio clearly and unambiguously demonstrates that the claimed container is different from the container that the Office Action asserts would result from a combination of the cited references. Although the previous Declaration addressed different references (Colvin and Maeda), the principles and experimental results provided therein are directly applicable to the present rejection.

In particular, the Office Action argues that the halogenated layer of Fehn provides a barrier layer, superior to any barrier properties provided by the container itself. The Office Action argues that it would have been obvious to use the post-halogenation process of Fehn to provide barrier properties to the container of Kvitrud. However, Applicants have demonstrated that this premise -- increased barrier properties as evidenced by a reduced moisture vapor transmission rate -- is in fact incorrect.

In particular, the previous Declarations describe that the post-halogenated or functionalized materials of the claimed invention exhibit moisture vapor transmission rates substantially equal to transmission rates of non-halogenated materials. Thus, while the Office Action argues that Fehn provides increased barrier properties beyond that provided by the container matrix itself, the Declaration demonstrates that the process of Fehn does not provide a reduction in the moisture vapor transmission rate. Although the claimed invention provides improved shelf-life and decreased rate of viscosity change to the contained material, such improvement is not provided by an impervious fluorinated surface layer, which the Office Action argues would be provided by Fehn. Accordingly, one of ordinary skill in the art would not have been motivated to combine the cited references, because there would be no apparent benefit to be obtained once the true result of the combination is known.

Accordingly, because the underlying reasoning of the Office Action for combining the references is incorrect, and because the post-halogenation in fact does not provide the asserted improved barrier properties, the rejection must be withdrawn.

b. Kvitrud and Fehn are Non-Analogous Art

Each of Kvitrud and Fehn is directed to non-analogous art from the claimed invention and from each other, and thus there would have been no motivation to combine Kvitrud and Fehn to practice the claimed invention. Prior art references must be "within the field of the inventor's endeavor ... [or] reasonably pertinent to the particular problem with which the inventor was involved." Union Carbide Corp. v. American Can Co., 724 F.2d 1567, 1572, 220 USPQ 584, 588 (Fed. Cir. 1984).

Kvitrud, discussed above, is directed to a very particular container for containing very particular materials. That is, Kvitrud is directed to a special container that prevents certain wavelength radiation from entering the container, because such radiation would tend to cure a photocurable material contained in the container. Fehn is directed to a container made from post-consumer recycled material, which may have contaminants within the polymer material. To prevent such contaminants from entering the container contents, Fehn applies a protective layer to the inside of the container. Thus, while Kvitrud relates to very specific containers and contents, Fehn relates to container recycling, and a means to prevent contaminants from the container itself from entering the container contents. In contrast to both Kvitrud and Fehn, the claimed invention is directed to containers for increasing the shelf-life of contained 1,1-disubstituted ethylene monomer compositions, such as cyanoacrylate adhesives. Neither Kvitrud nor Fehn discloses that their containers could or should be used for cyanoacrylate compositions, or that their described improved containers would provide any benefit to such cyanoacrylate compositions. The artisan would not readily recognize these divergent teachings

as being applicable to each other, or to the claimed invention. Thus, Kvitrud and Fehn are not within the same field of endeavor as the present invention.

Neither is Kvitrud or Fehn reasonably pertinent to the particular problem with which applicants were involved. The present invention is directed to solving the problems associated with providing containers for increasing the shelf-life of contained 1,1-disubstituted ethylene monomer compositions, such as cyanoacrylate adhesives. Kvitrud is directed to protecting photocurable compositions, and Fehn is directed to avoiding contaminants in recycled materials.

Thus, Kvitrud and Fehn are non-analogous art, both to the claimed invention and to each other, and are improperly cited against the instant claims.

c. There is No Motivation to Combine the Cited References

Furthermore, Kvitrud and Fehn are improperly combined, as there is no motivation for their combination except for in the instant claims.

Two references can not be combined to render obvious the claimed invention where there is no motivation in the references or elsewhere to make the asserted combination. For example, the Federal Circuit held in In re Oetiker that "[t]here must be some reason, suggestion or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination." 977 F.2d 1443, 1447, 24 USPQ2d 1443, 1446 (Fed. Cir. 1992). See also In re Geiger, 815 F.2d 686, 2 USPQ2d 1276 (Fed. Cir. 1987) ("Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination."). That is, it is not enough that a reference may be capable of being modified so as to arrive at a claimed invention. To the contrary, the prior art must have suggested the desirability of such modification to one of ordinary skill in the art at the time the invention was made.

In the present case, there is no motivation to combine Kvitrud and Fehn. First, neither of the references addresses the problems of the other reference, as described in detail above.

Second, Neither reference identifies a problem with its respective container, that could or should be addressed by making the asserted combination. That is, Kvitrud does not teach or suggest that any further improvement is required in the described container, such as to provide the fluorinated barrier layer of Fehn. Still further, neither Kvitrud nor Fehn address whether the asserted combination would even be suitable for the objectives of Kvitrud, as neither reference addresses whether such fluorination treatment would have any adverse impact on the photocurable composition, which is the focus of Kvitrud.

At most, the Office Action alleges that the combination is proper because the Fehn disclosure would be expected to provide improved barrier properties. However, even if improved barrier properties were provided, neither of the references teach or suggest that the combination would provide an increased shelf-life or a reduced viscosity change rate in the contained 1,1-disubstituted ethylene monomer composition. That is, the references at most teach that the treatment of Fehn would provide reduced moisture vapor transmission through the container wall; however, neither reference teaches or suggests the unexpected result that the shelf-life would be increased and the rate of change of viscosity would decrease.

Accordingly, for at least these reasons, the Office Action has improperly asserted a combination of Kvitrud and Fehn, without any motivation for one of ordinary skill in the art to have made such a combination. The only motivation for the combination derives from Applicants' claimed invention, which is simply an improper hindsight reconstruction of the claimed invention.

4. Conclusion

For at least these reasons, Kvitrud, in combination with Fehn, would not have rendered obvious the claimed invention. Reconsideration and withdrawal of the rejection are respectfully requested.

B. Kvitrud, Fehn and Stehlik

Claims 10-14 and 19-20 are rejected under 35 U.S.C. §103(a) over Kvitrud in view of Fehn, and further in view of Stehlik. Applicants respectfully traverse this rejection.

The combination of Kvitrud and Fehn is discussed in detail above, with respect to the independent claims. Stehlik is cited for various limitations of the dependent claims, and not for the omitted teachings of Kvitrud and Fehn.

For all of the reasons set forth above, Kvitrud and Fehn would not have rendered obvious the claimed invention. The cited combination of references is improper, as there is no motivation to have combined the references, and each reference is directed to different and non-analogous art both from each other and from the claimed invention. Further, the asserted basis for the combination -- to provide an impermeable barrier in the inside of the container -- is specifically contrary to the moisture vapor transmission rate experiments that have been provided by Applicants. Because Stehlik does not address any of these deficiencies, the combination of Stehlik with Kvitrud and Fehn cannot overcome the deficiencies of the primary references, and cannot have rendered obvious the claimed invention.

For at least these reasons, Kvitrud, in combination with Fehn and Stehlik, would not have rendered obvious the claimed invention. Reconsideration and withdrawal of the rejection are respectfully requested.

C. Kvitrud and Walles

Claims 46-50 are rejected under 35 U.S.C. §103(a) over Kvitrud in view of Walles. Applicants respectfully traverse this rejection.

Kvitrud is discussed in detail above. Walles is cited for the asserted disclosure that polymeric containers can be functionalized, such as with SO₃ gas, to decrease the permeability of the containers to chemicals. However, regardless of this disclosure, the

combination of Kvitrud and Walles suffers from the same deficiency as the combination of Kvitrud and Fehn, discussed above.

In particular, Walles suffers from the same problems as Fehn. The Office Action asserts that Walles discloses that a more impermeable barrier layer can be provided by functionalization with SO_3 gas. However, for the same reasons as described above, Kvitrud and Walles would not have rendered obvious the claimed invention. The cited combination of references is improper, as there is no motivation to have combined the references, and each reference is directed to different and non-analogous art both from each other and from the claimed invention. Nowhere does either reference teach or suggest that further improved barrier properties is required for the container of Kvitrud, or if or how the SO_3 gas may affect the contained photocurable composition. Without any clear reason for the combination, and without any clear expectation of success, one of ordinary skill in the art would not have been motivated to make the asserted combination.

Furthermore, the asserted basis for the combination -- to provide an impermeable barrier in the inside of the container -- is specifically contrary to the moisture vapor transmission rate experiments that have been provided by Applicants. Walles is cited for decreasing the chemical permeability through the container. However, Applicants have demonstrated with respect to the post-halogenation treatment that such treatment, and likewise the functionalization treatment, does not significantly alter the moisture vapor transmission rate through the container wall.

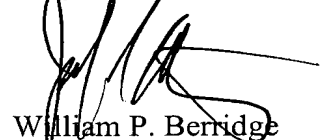
Accordingly, any combination of Kvitrud and Walles would be improper, but nevertheless would still not have rendered obvious the claimed invention. For at least these reasons, Kvitrud, in combination with Walles, would not have rendered obvious the claimed invention. Reconsideration and withdrawal of the rejection are respectfully requested.

III. Conclusion

In view of the foregoing remarks, Applicants submit that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the application are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,



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Date: May 23, 2003

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